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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/680,227	10/06/2000	Paul A. Monte	900.8500USU	1612

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EXAMINER	
MEHRA, INDER P	

ART UNIT	PAPER NUMBER
2666	

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/680,227	MONTE ET AL.	
	Examiner	Art Unit	
	Inder P. Mehra	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) *9-41* is/are allowed.

6)☒ Claim(s) *1-8 and 42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 October 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to application filed dated: 8/10/2005.

2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Objections

3. Claims 1, 5 and 42 are objected to because of the following informalities:

Claims 1, 5 and 42 recite the following limitation "routing (saidl) individual ones of said code division multiplexed channel blocks to their destination in accordance with the individual predetermined spreading waveforms. In this limitation, it is not clear as to in which location, the limitation: "routing—" is carried out or performed? Is it performed in gateway, or satellite or any other router?

Applicant argues, "the Examiner states that it is not clear as to in which location the limitation "routing" is carried out or performed.

"The routing, as the claims read now, is in accordance with the individual predetermined spreading waveforms as set out in the claims, thereby obviating this objection. Applicants respectfully submit it is inappropriate to request correction/ clarification calling for unnecessary limitations in the claims in the absence of prior art since the claims are clear on their face.

In response, it is stated that whenever claim's interpretation is not clear, the objection is valid. Applicant has not responded to the examiner's question as to the component (location) where the routing is performed.

Appropriate correction/clarification is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4 rejected under 35 U.S.C. 102(e) as being anticipated by **Harms et al** (US Patent No. 6,493,376), hereinafter, Harms.

For claims 1 and 42, Harms discloses, in reference to fig. 1), "a method for processing communications in a satellite telecommunications system (col. 1 lines 12-20), comprising the steps of:

- providing a gateway and a satellite(14 and 16) coupled together through at least one feeder link (42, 46 and 48, forward link, col. 2 lines 40-45,), said feeder link conveying a plurality of channel blocks, (refer to fig. 1. col. 7 lines 20-32, "channelizing codes", col. 1 lines 66-col. 2 line 5);
- code division multiplexing each of said plurality of channel blocks using apredetermined spreading waveform selected to indicate an origin and a

destination of each of said plurality of channel blocks (channelizing orthogonal code using PN chip rate, refer to col. 2 lines 3-20);

- transmitting said code division multiplexed channel blocks; and,routing said individual ones of said channel blocks to their destination in accordance with the individual predetermined spreading waveforms ("The system users communicate through gateways and satellites, or terrestrial base stations (also referred to as cell-sites or cells) using CDMA spread spectrum communication signals", refer to col. 1 lines 40-45, using preselected PN spreading code—moculation signals, refer to col. 4 lines 40-45, col. 4 lines 53-55.

For claims 2-4, Harms discloses the following limitations:

- wherein said at least one feeder link is a return feeder link, **as in claim 2,** refer to 42, 46 and 48, col. 8 lines 15-18 .
- wherein said at least one feeder link is a forward feeder link, , **as in claim 3,** refer to 42, 46 and 48, col. 8 lines 15-18 .
- wherein said destination comprises at least a beam of a forward service link, , **as in claim** 4, refer to col. 2 lines 2-5, col. 9 line 2.

Allowable Subject Matter

6. Claims 9-41 are allowed.

7. Claims 1-8 are objected to as being dependent upon a rejected base claim, see objection to drawings and claims" but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed 8/10/05 have been fully considered but they are not persuasive.

Applicant argues that no where in these recitations is there taught, suggested or implied providing a plurality of channel blocks which are code division multiplexed using a predetermined spreading waveform selected to indicate an origin and a destination of each of said plurality of channel blocks and thereafter transmitting the CDMA channel blocks to their destination in accordance with individual predetermined spreading waveform.

In response, it is stated that Harm discloses, in reference to figs. 1 and 3, ***the channel blocks***, refer to col. 3 lines 59-61, CDMA, col. 1 lines 65-67, predetermined spreading waveform, (refer to "That is, each user transceiver **has its own orthogonal channel** provided on the forward link by using **a unique `covering` or `channelizing` orthogonal code**. **PN code based modulation techniques used in CDMA signal processing allow spectrally similar communication signals to be quickly differentiated,** col. 2 lines 3-30; a more detailed representation of an exemplary block correlator 142 is illustrated in FIG. 12. When a block of decoded **outer PN code chips is transferred to correlator 142,, where block of data (channel block) is associated, In fig. 3. PN code80 is used to combine with data**. It also

shows, its origin 78 to destination 76 in fig. 3, because PN is correlated at source of data and orthogonal is used to identify Base station.

However, Harms's second reference (US Patent No. 6,765,953) discloses a set of ***preselected pseudorandom noise (PN) code sequences is used to modulate (i.e., spread") information signals over a predetermined spectral band*** prior to modulation onto a carrier signal for transmission as communications signals. ***PN spreading, a method of spread-spectrum transmission*** that is well known in the art, produces a signal for transmission that has a bandwidth much greater than that of the data signal. In a satellite forward communications link (that is, in a communications link ***originating at a gateway (origin) and terminating at a user terminal) (destination),*** PN spreading codes are used to discriminate between signals transmitted by a gateway over different beams, and to discriminate between multipath signals. These PN codes are usually shared by all communications signals within a beam.

Applicant argues, "no where in these recitations is there taught, suggested or implied providing a plurality of channel blocks which are code division multiplexed using a predetermined spreading waveform selected to indicate an origin and a destination of each of said plurality of channel blocks and thereafter transmitting the CDMA channel blocks to their destination in accordance with individual predetermined spreading waveform".

Applicant, further, argues, "'In a typical spread-spectrum communication system, one or more sets or pairs of preselected pseudorandom noise (PN) code sequences are used to modulate or 'spread' user information signals over a predetermined spectral band prior to modulation onto a carrier for transmission as communication signals." Applicants respectfully submit this does little to cure the deficiencies as noted above with regard to the channel blocks employing

the spreading waveform to indicate an origin and a destination of each of plurality of channel blocks and thereafter transmitting in accordance with the predetermined spreading waveform as required by claims 1 and 42".

In response, it is stated that Harms discloses explicitly "In a typical CDMA spread spectrum communication, ***channelizing codes (***spreading waveform) are used to ***discriminate between signals intended for different users*** (indicates origin and destination)---within satellite beam or sub beam on ***forward link*** , refer to col. 1 line3 through col. 2 line 5. Further, Harms discloses explicitly, PN code based modulation techniques used in CDMA signal processing allow spectrally similar communication signals to be quickly differentiated", refer to col. 2 lines 10-15.

Applicant argues, "the Examiner states that it is not clear as to in which location the limitation "routing" is carried out or performed.

"The routing, as the claims read now, is in accordance with the individual predetermined spreading waveforms as set out in the claims, thereby obviating this objection. Applicants respectfully submit it is inappropriate to request correction/ clarification calling for unnecessary limitations in the claims in the absence of prior art since the claims are clear on their face.

In response, it is stated that whenever claim's interpretation is not clear, the objection is valid. Applicant has not responded to the examiner's question as to the component (location) where the routing is performed.

In light of above explanation, arguments by applicant are not persuasive.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P. Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder Pal Mehra 11/9/05
Inder P Mehra
Examiner
Art Unit 2666

DANG TON
SUPERVISORY EXAMINER